IN THE CLAIMS

Please amend the claims as follows:

1. - 17. (Canceled)

18. (Previously Presented) A method comprising:

attaching a die to a substrate;

heating a mold;

placing a thermally conductive heat spreader into the mold;

placing the substrate into the mold; and

flowing a molten metal material into contact with the thermally conductive heat spreader and the die to substantially fill a space between the thermally conductive heat spreader and the die with the metal material.

19. (Original) The method of claim 18 further comprising underfilling the space between the die and the substrate.

20. (Original) The method of claim 18 further comprising encapsulating the die.

21. (Original) The method of claim 18 wherein flowing a molten metal material into contact with the thermally conductive heat spreader and the die includes flowing a molten metal material through a gate in the mold and a gate in the thermally conductive heat spreader.

22. (Original) The method of claim 18 further comprising cooling the mold and the thermally conductive heat spreader to solidify the molten metal material.

23. (Original) The method of claim 18 further comprising placing a pressure on the molten metal material.

24. (Original) The method of claim 23 wherein placing a pressure on the molten metal includes maintaining a pressure substantially during flowing a molten material.

25. (Original) The method of claim 18 further comprising removing reactive components from the space between the die and the thermally conductive heat spreader.

26. (Previously Presented) The method of claim 25 wherein removing reactive components from the space between the die and the thermally conductive heat spreader further includes:

initially drawing a vacuum on the space between the die and the thermally conductive heat spreader to substantially remove a first gas; and

purging the space between the die and the thermally conductive heat spreader with a second gas.

27. (Original) The method of claim 26 wherein the second gas is less reactive than the first gas.

28. (Original) The method of claim 26 further comprising drawing a second vacuum on the space between the die and the thermally conductive heat spreader.

29. (Original) The method of claim 26 wherein the second gas is an inert gas.

30. (Original) The method of claim 18 further comprising adding a wetting layer to at least one of the surfaces associated with the space between the substrate and the thermally conductive heat spreader.

31. (Previously Presented) The method of claim 18 further comprising stacking a second die onto the first die.

32. (Original) The method of claim 31 further comprising encapsulating the first die and second die.

33. (Original) The method of claim 18 further comprising:

adding at least one other component to the substrate;

underfilling the at least one other component; and

encapsulating the at least one other component.

34. (Currently Amended) A method comprising:

attaching at least one die to a substrate;

placing a thermally conductive heat spreader over the die, the thermally conductive heat spreader surrounding the die; and

interposing a molten metal material between the thermally conductive heat spreader and the die, the molten metal material substantially filling a gap between the die and the thermally conductive heat spreader.

35. (Original) The method of claim 34 further comprising attaching a second die onto the substrate.

36. (Original) The method of claim 34 further comprising stacking a second die onto the at least one die attached to the substrate.

37. (Currently Amended) ~~The method of claim 34 further~~ A method comprising:

attaching at least one die to a substrate;

placing a thermally conductive heat spreader over the die;

interposing a molten metal material between the thermally conductive heat spreader and the die, the molten metal material substantially filling a gap between the die and the thermally conductive heat spreader; and

cooling the molten metal material after the space between the at least one die and the thermally conductive heat spreader was filled with the molten metal material.

38. (Original) The method of claim 37 further comprising pressurizing the molten metal material.

39. (Original) The method of claim 34 further comprising underfilling the space between the die and the substrate.

40. (Original) The method of claim 34 wherein interposing a molten metal material further comprises removing the molten metal material from a portion of a vessel that is not exposed to the atmosphere.

41. (Original) The method of claim 34 further comprising adding a wetting layer to at least one surface in the space between the die and the substrate.

42. (Previously Presented) A method comprising:
attaching a die to a substrate;
placing a heat spreader into a mold;
placing the substrate and die into the mold; and
flowing a molten metal material into contact with the heat spreader and the die to substantially fill a gap between the heat spreader and the die.

43. (Previously Presented) The method of claim 42 further comprising underfilling the space between the die and the substrate.

44. (Previously Presented) The method of claim 42 further comprising encapsulating the die.

45. (Previously Presented) The method of claim 42 wherein flowing a molten metal material into contact with the heat spreader and the die includes flowing a molten metal material through a gate in the mold and a gate in the heat spreader.

46. (Previously Presented) The method of claim 42 further comprising cooling the mold and the thermally conductive heat spreader to solidify the molten metal material.

47. (Previously Presented) The method of claim 42 wherein flowing a molten metal material into contact with the heat spreader and the die includes filling the space between the heat spreader and the die.

48. (Previously Presented) The method of claim 42 further comprising covering an electrical contact between the die and the substrate.

49. (Previously Presented) The method of claim 42 further comprising covering a plurality of electrical contacts between the die and the substrate with a material that is stable in the presence of the molten metal.

50 (Previously Presented) The method of claim 42 further comprising placing a pressure on the molten metal material.

51. (Previously Presented) The method of claim 42 further comprising encapsulating the die with a material that is stable in the presence of the molten metal.

52. (Previously Presented) The method of claim 42 further comprising adding an other component.

53. (Previously Presented) The method of claim 52 further comprising providing an underfiller between the other component and a surface to which the another component is attached.

54. (Previously Presented) The method of claim 52 further comprising encapsulating the die and the other component.

55. (Previously Presented) The method of claim 52 further comprising:

isolating a plurality of electrical contacts between the die and the substrate to which the die is attached from the molten metal; and

isolating a plurality of electrical contacts between the other component and a surface to which the other component is attached from the molten metal.

56. (Previously Presented) The method of claim 52 wherein adding an other component includes attaching the other component to the die.

57. (Previously Presented) The method of claim 52 wherein adding an other component includes attaching the other component to the substrate.

58. (Previously Presented) A method comprising:
attaching a die to a substrate;
heating a mold;
placing a thermally conductive heat spreader into the mold;
placing the substrate into the mold; and
flowing a molten metal material into contact with the thermally conductive heat spreader and the die, wherein flowing a molten metal material into contact with the thermally conductive heat spreader and the die includes flowing a molten metal material through a gate in the mold and a gate in the thermally conductive heat spreader.

59. (Previously Presented) A method comprising:
attaching a die to a substrate;
placing a heat spreader into a mold;
placing the substrate and die into the mold; and
flowing a molten metal material into contact with the heat spreader and the die, wherein flowing a molten metal material into contact with the heat spreader and the die includes flowing a molten metal material through a gate in the mold and a gate in the heat spreader.